

## Wireless Communication

- Characteristics of Wireless Channel
  - ◆ Fading And Interference
  - ◆ Equalization And Diversity
- Fundamentals of Cellular Network
  - ◆ Frequency Reuse concept
  - ◆ Sectorization And Cell Splitting
  - ◆ Handoff Mechanisms
  - ◆ Trunking Theory
- GSM and GPRS Networks
  - ◆ GSM Architecture
  - ◆ GSM Frame and Channels
  - ◆ GPRS Architecture
  - ◆ GPRS Protocol Stack
- IS-95: CDMA
  - ◆ Orthogonal Variable Spreading Factor
  - ◆ PN sequence
  - ◆ CDMA RAKE receiver
  - ◆ CDMA Channels
- OFDM, MIMO and LTE network
- Mobile IP
  - ◆ Requirements and Effective Solution
  - ◆ Triangle Routing
  - ◆ IP Tunneling
  - ◆ Security in Mobile IP

### BOOKS:

- ◆ Wireless Communication- *T. S. Rappaport*
- ◆ Fundamentals of Wireless Communications-*David Tse*
- ◆ Third Generation wireless systems – *G. M. Calhoun*
- ◆ Mobile communication, Jochen Schiller